

Interceptive Orthodontics





- Definition.
- Interceptive procedures.
- How to manage crowding in the mixed dentition.
- Serial extractions.
- Myofunctional therapy.

what are other
words for
intervene?



step in, interfere, interpose,
intercede, meddle, intrude,
interrupt, mediate, negotiate,



That phase of orthodontics
employed to recognize
and eliminate potential
irregularities and
malpositions in the
developing Dentofacial
complex.

Definition



Interceptive Procedures

- 1–Space regaining.
- 2– Correction of anterior and posterior cross bites.
- 3– Elimination of oral habits.
- 4– Muscle exercises.
- 5– Removal of soft or hard tissue impediments in the pathway of eruption.
- 6– Resolution of crowding.
- 7– Interception of the developing malocclusions.

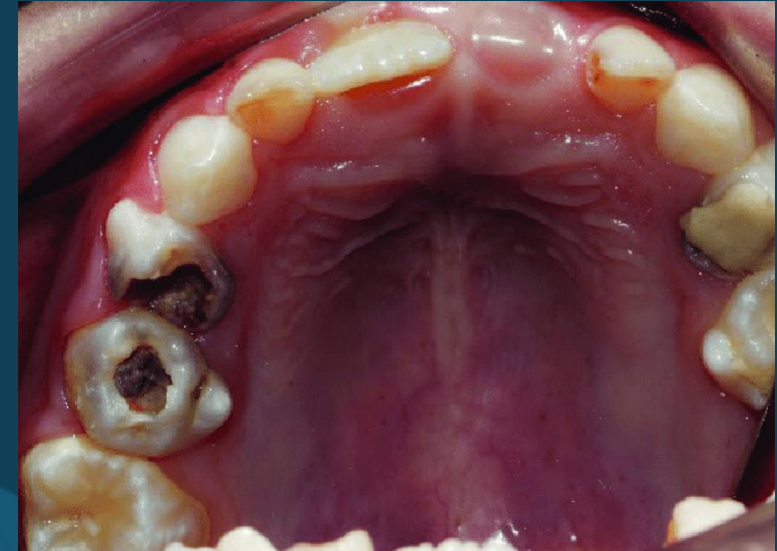


1-Space regaining

If space maintenance is not carried out on the premature loss of a deciduous second molar, the permanent first molar may tip or move mesially resulting in the loss of arch length.

Causes of mesial tipping/ drifting:

- 1- Caries lesions.
- 2- Ectopic eruption.
- 3- Premature extraction.



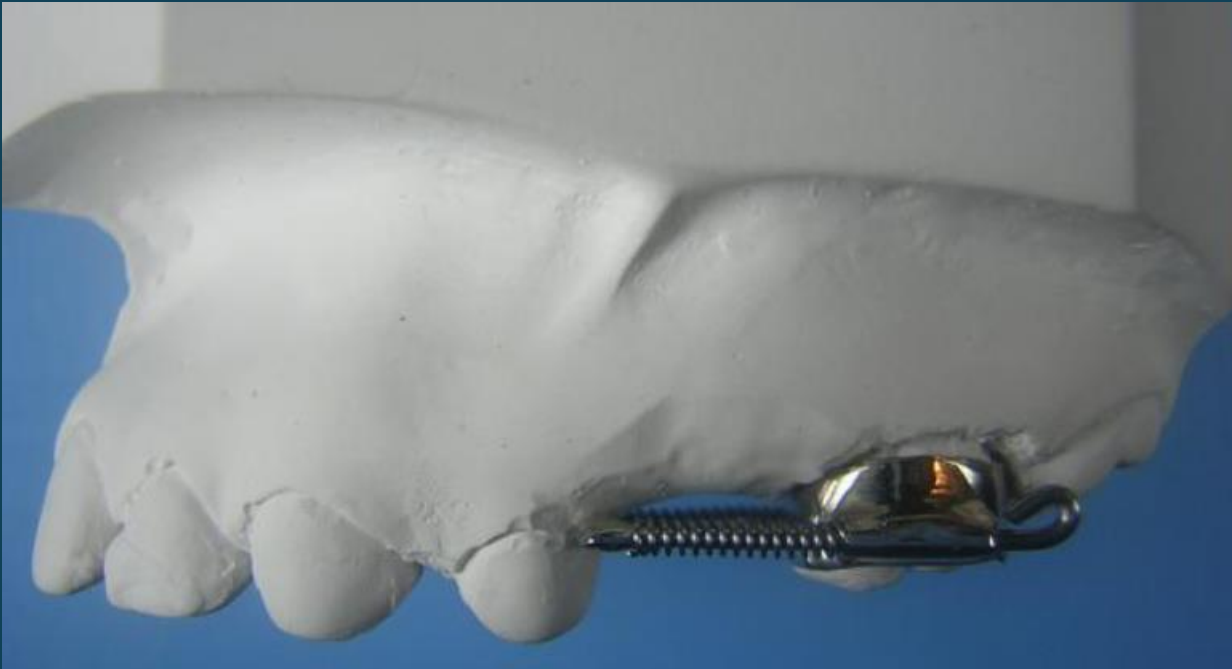
Upper palatally ectopic premolar



Lower lingually ectopic premolars

Most commonly used appliance

- Open coil space regainer



2-Correction of cross bites

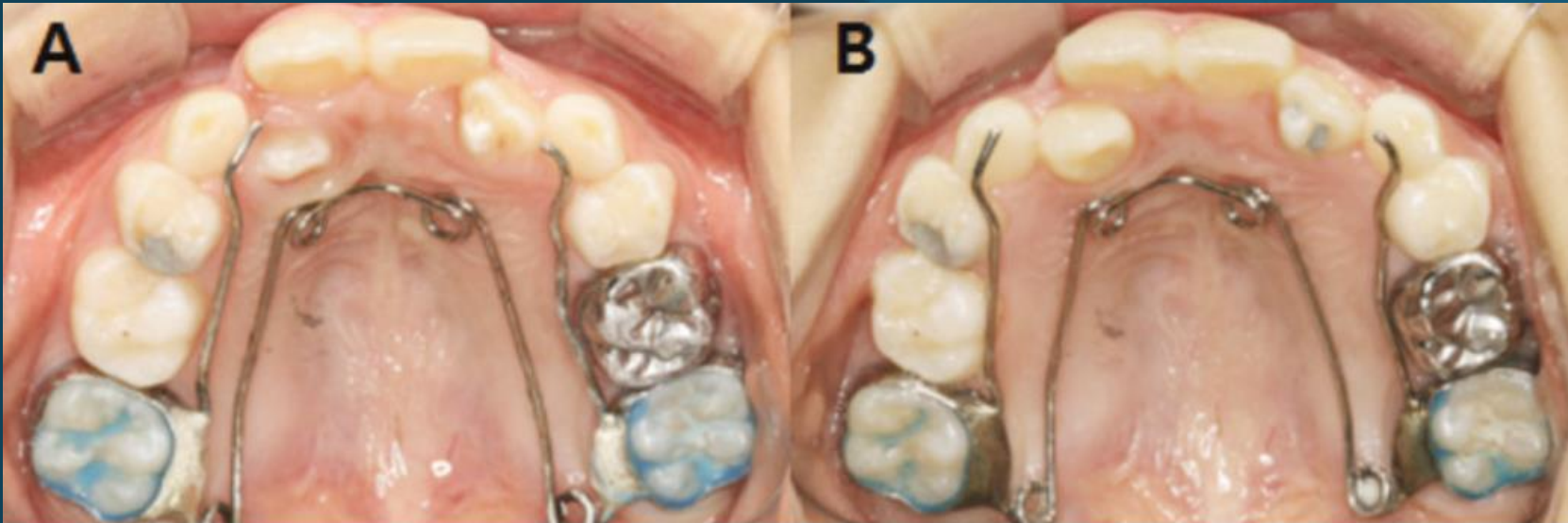
- Cross bites either anterior or posterior should be corrected once detected.
- If the cross bite is not treated in time, it could lead to a skeletal malocclusion.



Most common appliances used for cross bite correction.....

1-Appliance incorporating “ Z spring”.

2- Quad helix appliance.



3-Elimination of Oral habits



Thumb and digit sucking.



Tongue thrust.



Mouth breathing.

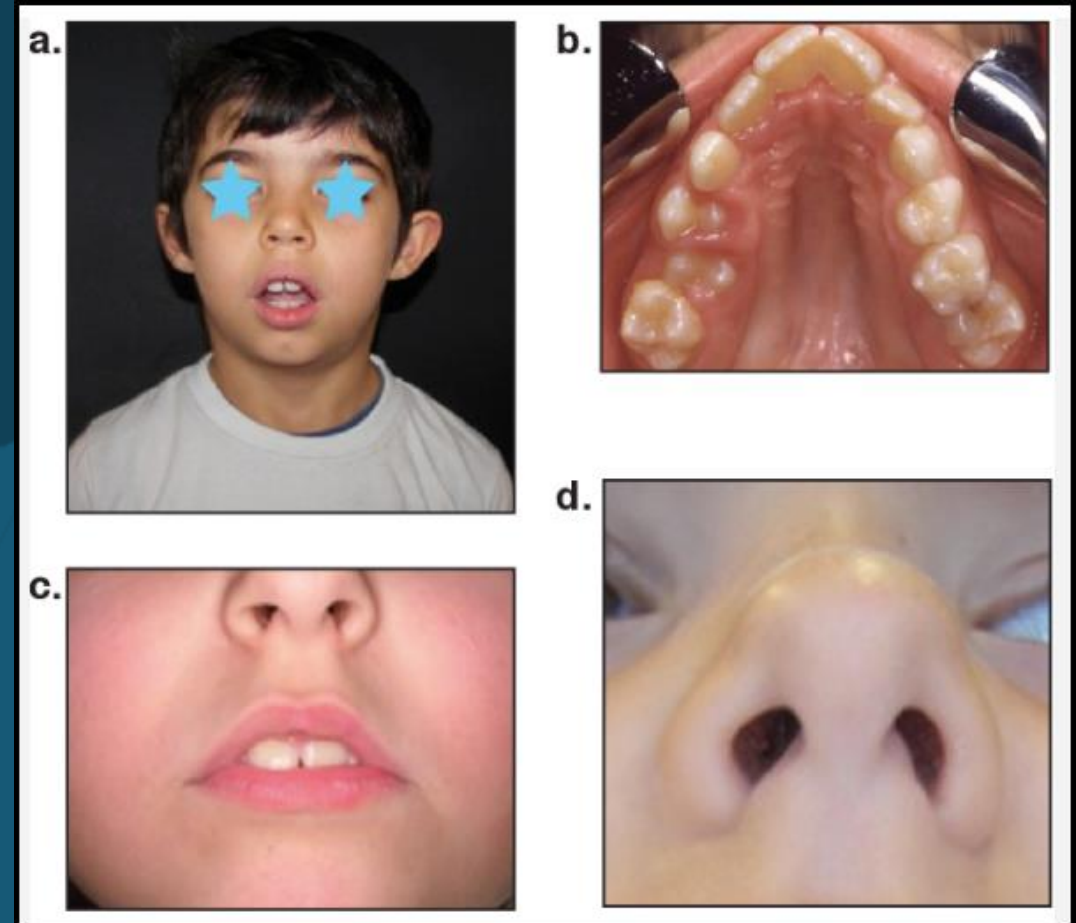
All oral habits lead to an imbalance in the forces acting on the teeth, causing the development of malocclusions.

4–Muscle Exercises

If the facial musculature were in a state of balance, a good occlusion would develop and if any of the muscle groups were aberrant, this would result in some form of a malocclusion.

Uses of muscle exercises:

- 1– To allow optimal growth patterns.
- 2– To allow optimal occlusion development.
- 3– To provide retention and stability in post-corrective orthodontic cases.



What are these exercises?

1- Playing musical instruments.

2- Hypotonic lips can be exercised by holding a piece of paper between the lips.

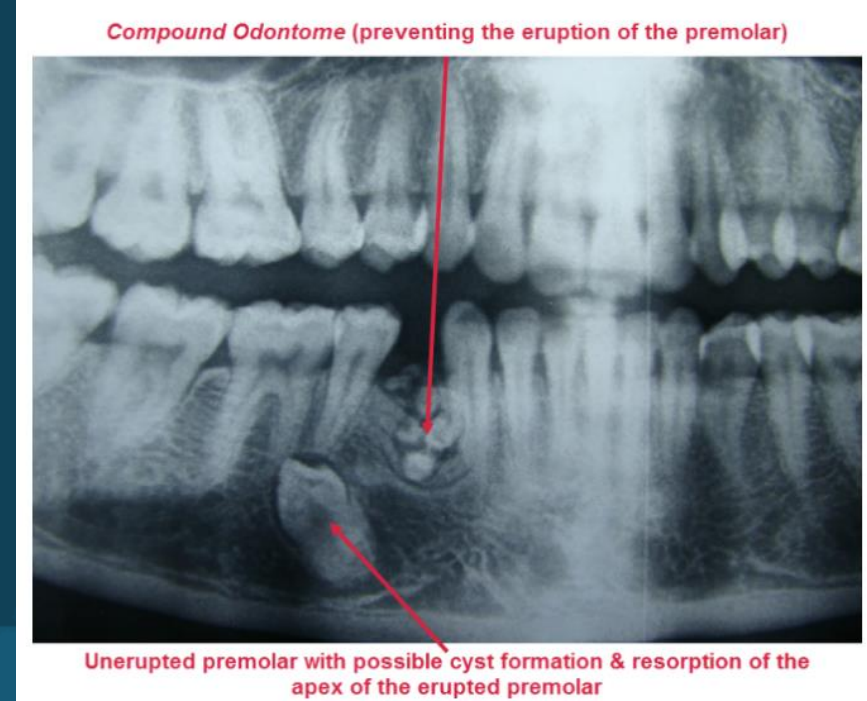
3- Use of oral screen appliance with a holder.

4- Placement of a scotch tape over the lips to maintain their seal.



5- Removal of soft or hard tissues impediments in the eruption pathway

- 1- Retained deciduous tooth.
- 2- Supernumerary teeth.
- 3- Bony obstruction of the erupting tooth bud.



6-Resolution of crowding

Crowding is present at different stages and of variable severity during the mixed dentition stage.

Due to:

1-Incisal liability: is the greater mesiodistal width of the permanent incisors as compared to their deciduous predecessors.

2-Initial non-spaced dentition.



How to manage crowding in the mixed dentition???

- a- Observation.
- b- Disking of primary teeth.
- c- Extractions & Serial extractions.
- d- Corrective Orthodontics.



A– Observation

- No crowding is anticipated if spaces more than 6 mm.
- If spaces of 2-3mm are present in the primary dentition, 50% resolution of crowding will occur.



B-Disking of Primary teeth.

- Is done if the space required for resolution of anterior crowding is not more than 4mm.

- It is started by :

- ☐ Disking of the mesial surfaces of the deciduous canines.

If more is needed

- ☐ Followed by the distal surfaces of the deciduous canines.

If more is needed

- ☐ Disking of the mesial surfaces of the deciduous 1st molars can be initiated.



Topical fluoride application after diskling is a must to avoid sensitivity.



C-Serial Extractions

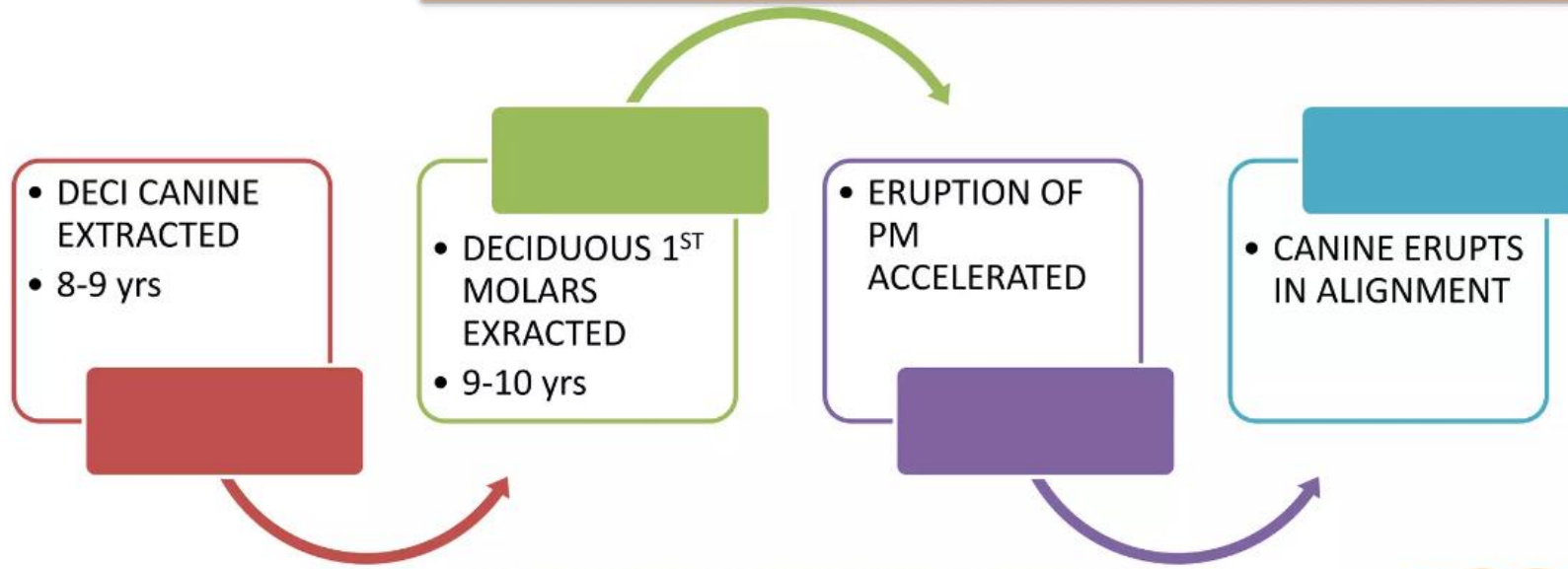
It is the planned and sequential removal of the primary and permanent teeth to reduce dental crowding problems.

In attempt of:

- 1- Alleviate crowding in the incisor region.
- 2- Decrease the period of active appliance.



DEWEL METHOD (CD4)-1978



Dewel's method



MODIFIED
DEWEL

7-Interception of developing malocclusion

How??!!!

Functional appliances

Are removable appliances designed to alter the neuromuscular environment of the orofacial region to improve occlusal development and/or craniofacial growth.



MOYERS

INTERCEPTION IN.....

Class II

Due to either :

1- Maxillary excess. (Headgear appliance)

2- Mandibular deficiency. (Twin block & Activator appliances)

Class III

Due to either :

1- Maxillary deficiency. (Frankel III / facemask appliance)

2- Mandibular excess. (Chin cup appliance)

